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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CARTER, DELUCA, FARRELL & SCHMIDT LLP
445 BROAD HOLLOW ROAD
SUITE 225
MELVILLE, NY 11747

EXAMINER

LEE, BENNY T

ART UNIT PAPER NUMBER

2817

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

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EXAMINER	
ART UNIT	PAPER NUMBER
	9

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

- ☐ This application has been examined ☐ Responsive to communication filed on 8 May 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire three (3) month(s), 88 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-14 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☒ Claims 8; 11 are allowed.
4. ☒ Claims 1, 2, 4; 9; 12; 13; 14 are rejected.
5. ☒ Claims 3, 5-7; 10 are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are: ☐ acceptable;
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☒ The proposed drawing correction, filed 8 May 2003, has been ☒ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The disclosure is objected to because of the following informalities: Note that "Fig 4B" still needs to have the features therein explicitly described. In figs 2, 4A, 4C, note that reference labels therein should reference the particular drawing figures in which they actually appear. It is noted that applicant's attempt to remedy the above objection by adding figs. --4a, 4b and 4c-- to the description of Fig. "2" in the paragraph at page 6, line 11 is not satisfactory. This amendment does not address the original problem of the description not describing all of the features which actually appear in Figs. 4a, 4b and 4c. Appropriate correction is required.

The drawings are objected to because of the following: In figs. 2, 4A, 4B, 4C, note that reference labels (70b, 72b, g) still need to be labeled therewith: In fig. 4C, reference label (55a) still needs to be labeled therein. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, note the recitation of "coupling an RF field in the output cavity to the output leads" appears to be a misleading description. Note from the specification description that it is the output leads which --excite-- an RF field in the output cavity rather than the coupling of any existing RF field in the output cavity to the output leads. Clarification is needed.

The following claims have been found objectionable for reasons set forth below:

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In claim 1, fifth paragraph; claim 8, fourth paragraph; claim 9, fourth paragraph; claim 12, second paragraph; claim 13, fifth paragraph: note that --respective-- should precede "input leads".

In claim 1, fourth paragraph, third line; claim 12, second paragraph; claim 13, fifth paragraph: note that --amplified-- should precede "RF field".

In claim 1, fourth paragraph, fourth line, note that "coupled to the output leads of" should be rewritten as --from-- and "to amplify the RF power from the source" should be deleted to provide a better characterization of the invention.

In claim 1, fifth paragraph; claim 10, last paragraph; claim 12, last paragraph; claim 13, last paragraph: note that --the amplified RF field in-- should be inserted after "from" to provide a better characterization.

In claim 8, fifth paragraph, note that --respective-- should precede "output leads-- for a proper characterization; last paragraph, note that --coupling amplified RF power from the amplified RF field in the output cavity out of said active radio frequency cavity amplifier-- is suggested for a better characterization.

In claim 9, the last paragraph should be rewritten as follows: --means, coupled to the output leads of the plurality of transistors, for inducing an amplified RF field in the output cavity, via the at least one gap of the output cavity-- for a better characterization.

In claim 13, fifth paragraph, note that "coupled to the output leads of the plurality of transistors to amplify the RF source" should be deleted as being unnecessary in view of the above amendments to the claim.

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Claim 14, fifth paragraph, note that "between the output leads" should be rephrased as -- between output leads-- for a proper characterization.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 9, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols et al.

Nichols et al (Figs. 2, 3) discloses an active radio frequency cavity amplifier comprising a conductive housing including: an annular cavity resonator divider (22') which divides an input signal (from an inherently connected power source) applied at input terminal (15) to plural input signals which are coupled along channels (12) to the input leads (e.g. 18, 19) of MIC amplifier subassemblies or modules (17), including FET transistors (46), for amplification therein. The amplified signals are outputted from the output leads of transistors (46) and are coupled via output lines (e.g. 38) to a combiner cavity resonator (22) to be outputted as a combined signal terminal (16) to an inherently connected load. Note that the input/output cavity resonators are configured such that the channel of the cavity resonator is of the annular type having an annular slot or gap configuration (e.g. 36', 36). Note that the amplifiers are connected at the transistor

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leads via respective conductive lines (e.g. 37, 38) to the respective input and output cavity resonators of the combiner/divider cavity structures via the slot or gap (see 36, 36 in Fig. 2).

Applicant's arguments with respect to claims 1, 4-6; 8; 9, 10; 11, 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 3, 5-7; 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8; 11 are allowable over the prior art of record.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hom pertains to an amplifier having plural amplifiers coupled via openings in the divider/combiner. Fassett et al pertains to an amplifier having divider/combiners with annular gaps for connection to the amplifier.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Lee whose telephone number is (703) 308 4902.



BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817

B. Lee

July 21, 2003